

FIG. 1

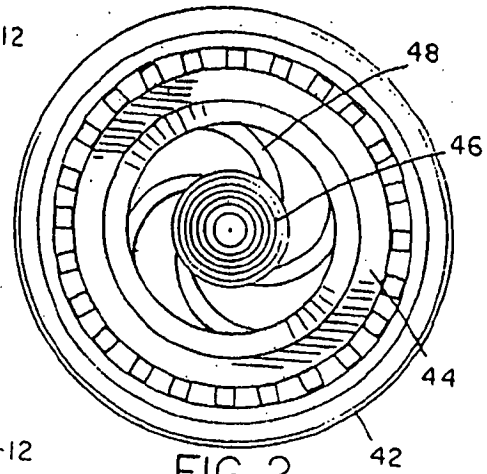


FIG. 2

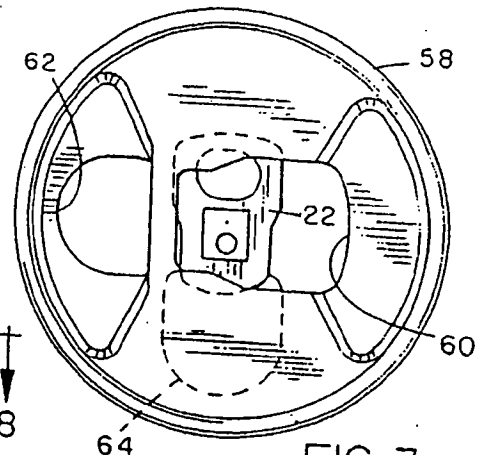


FIG. 3

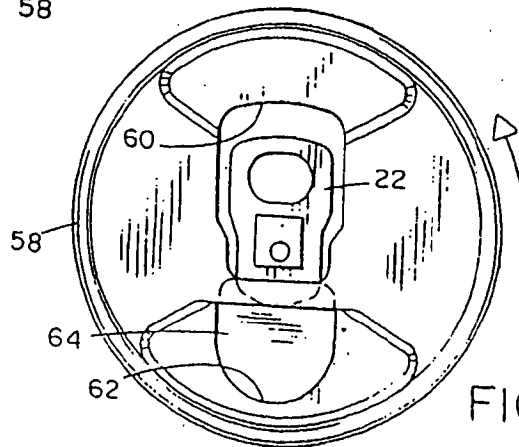
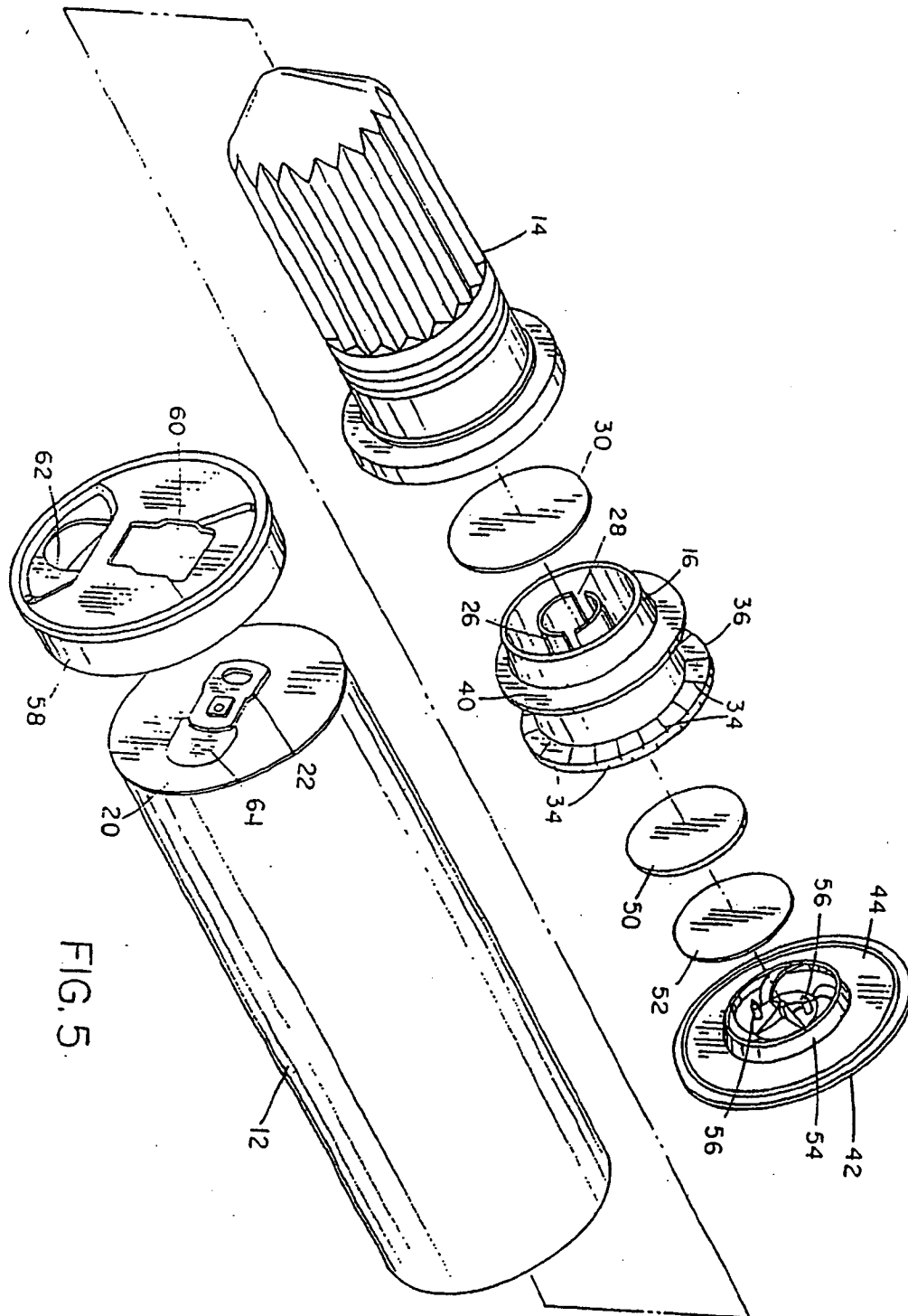


FIG. 4





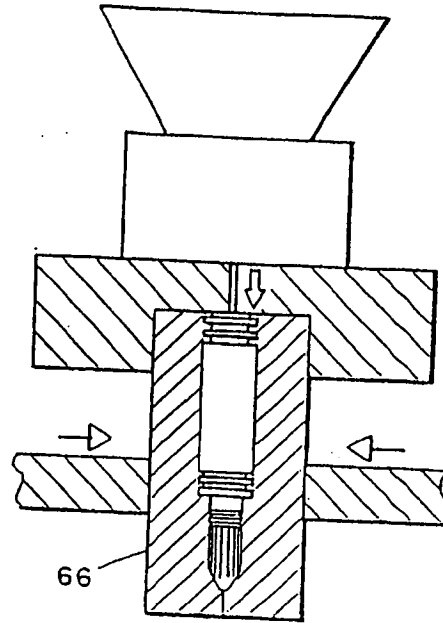


FIG. 9

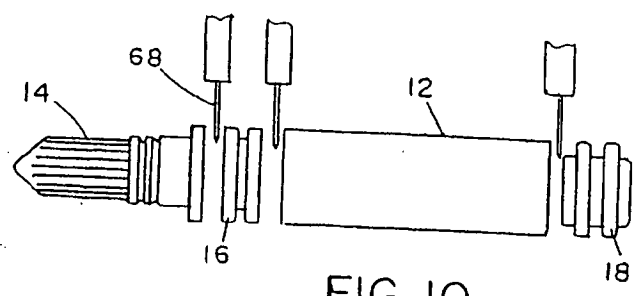


FIG. 10

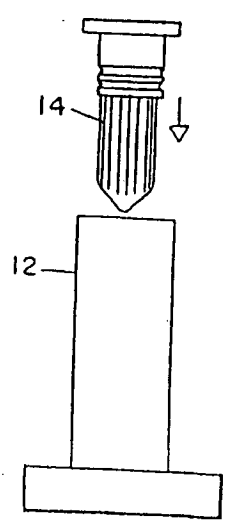


FIG. IIA

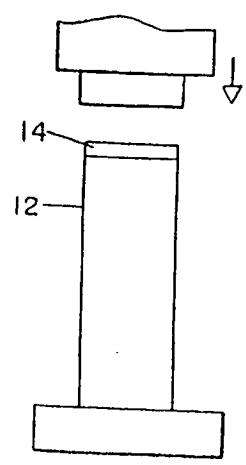


FIG. IIB

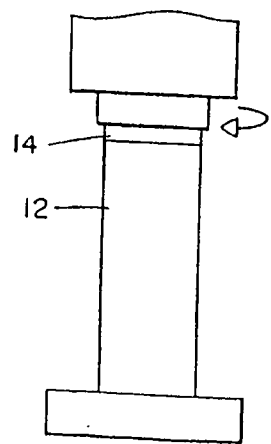
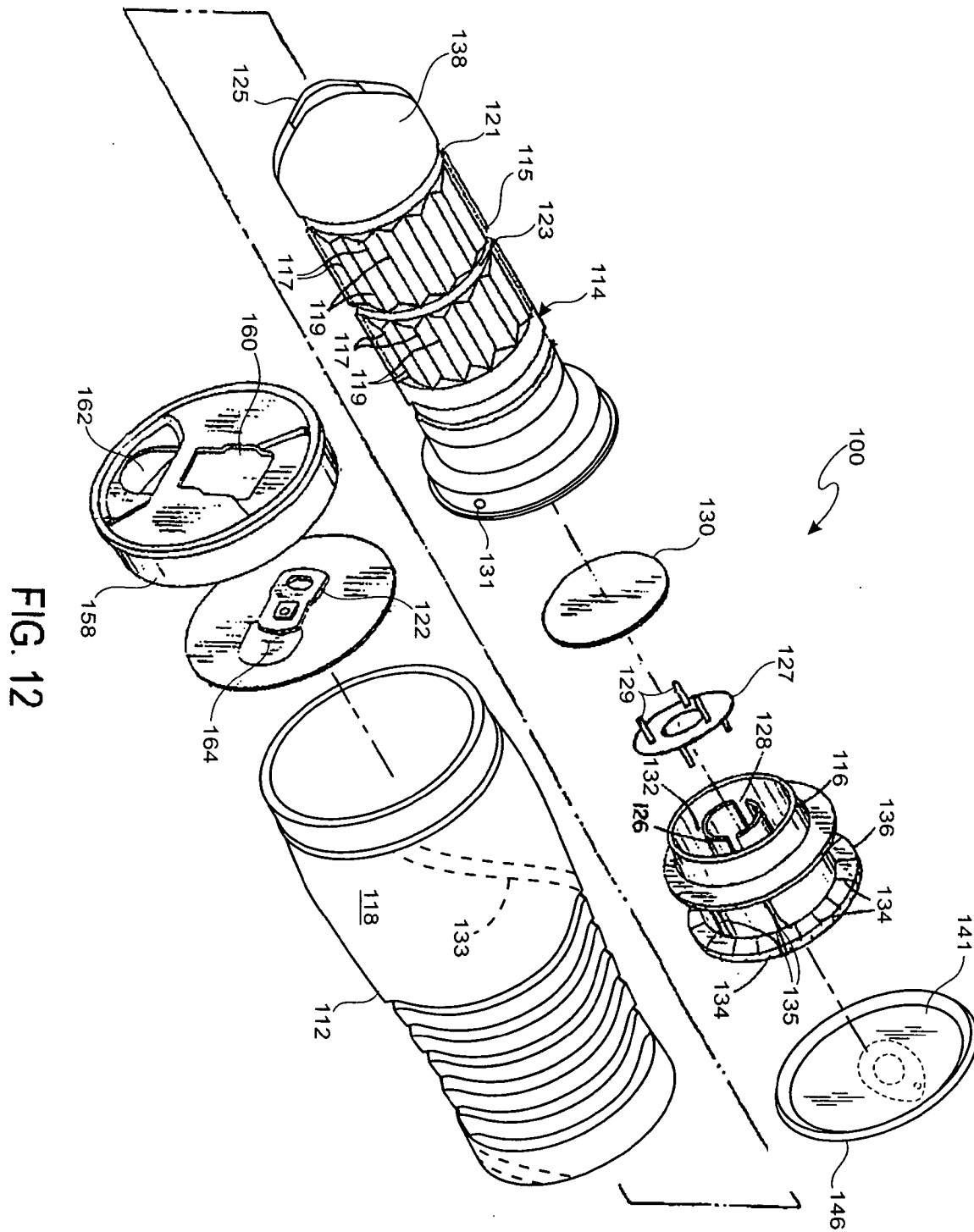


FIG. IIC



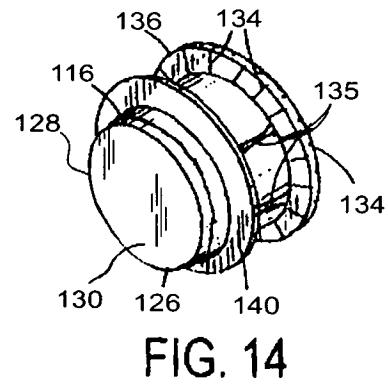
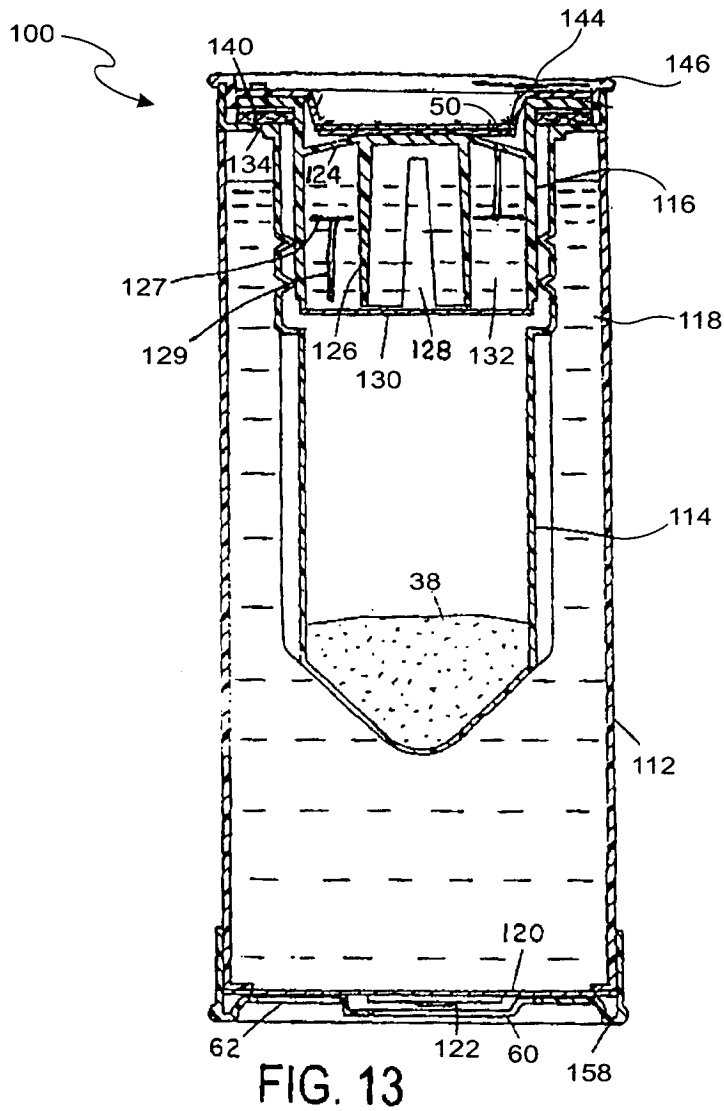


FIG. 15

Calories Generated from Various Screen Sizes

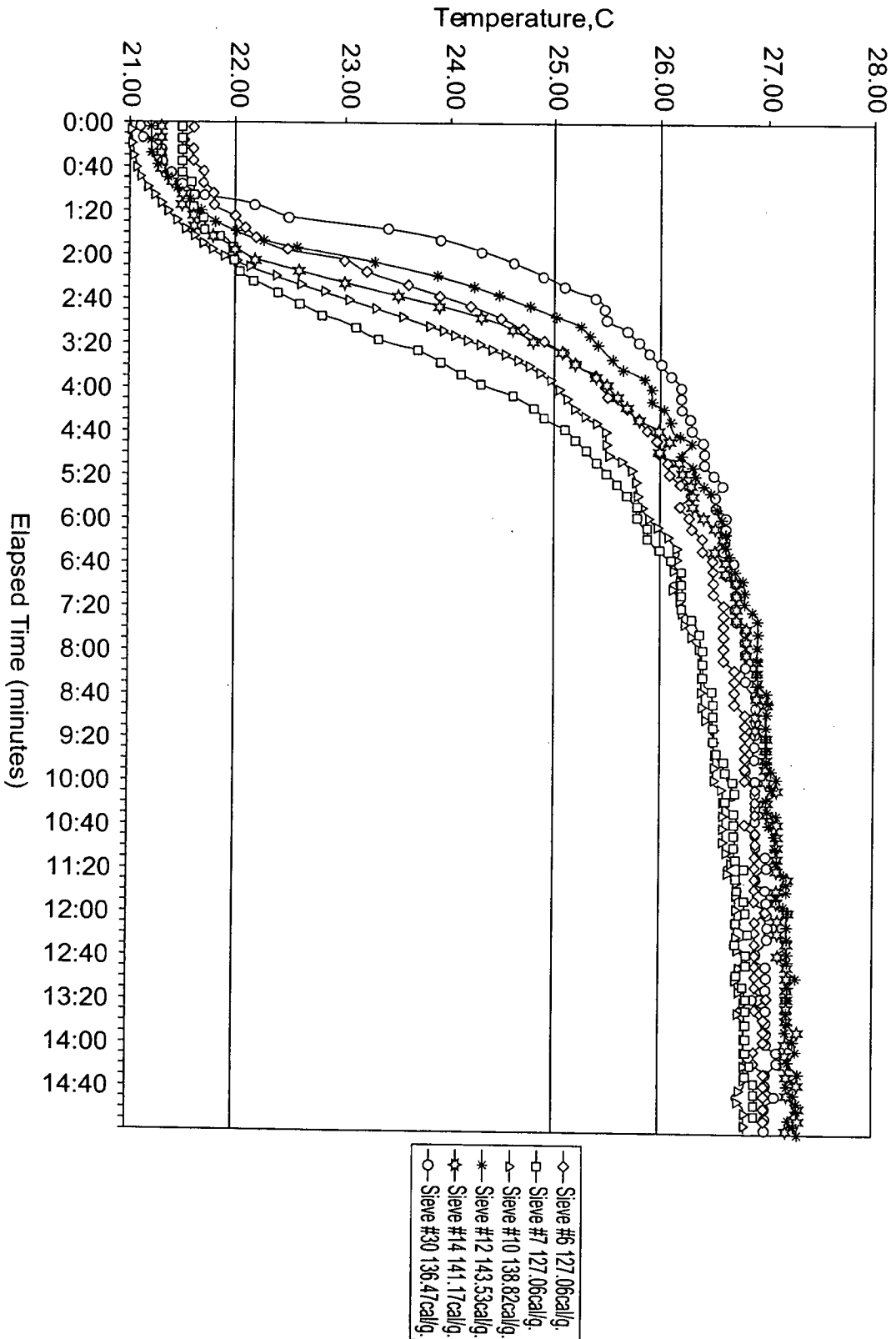


FIG. 16

Calories Generated Per Particulate Size Sheet 1

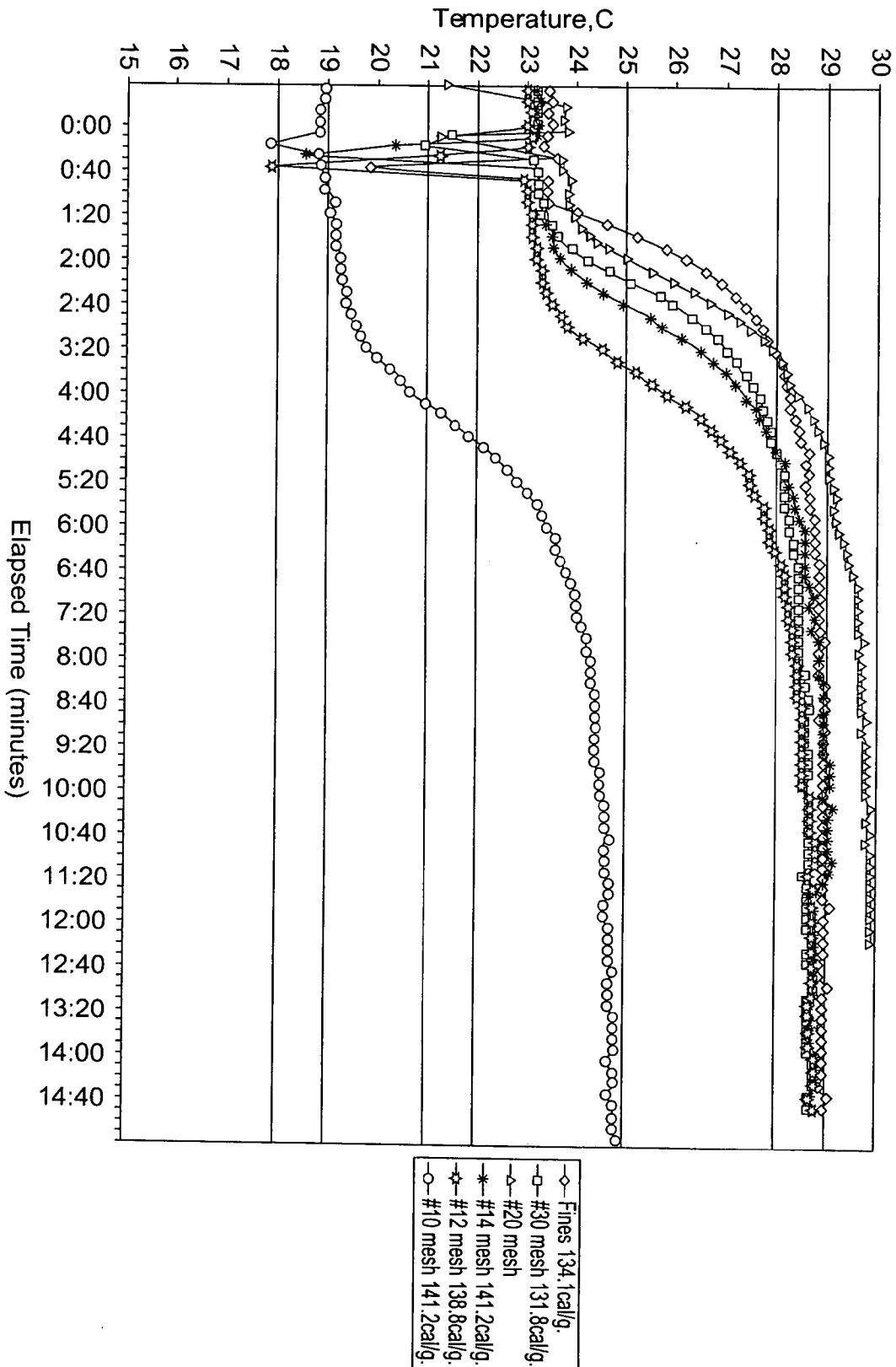




FIG. 17

Calories Generated Per Particulate Size Sheet 2

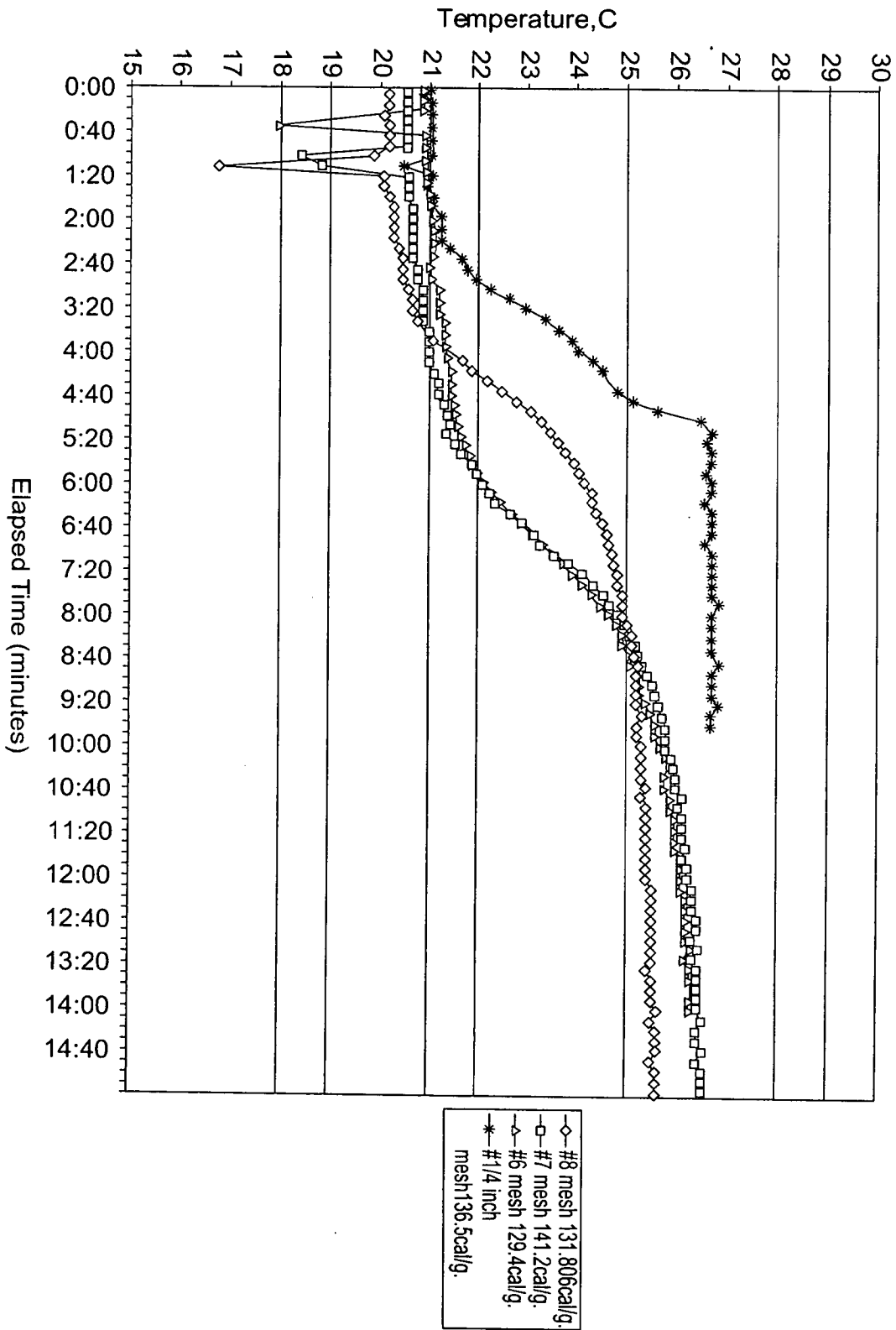


FIG. 18

Alternate Kiln Testing at Various Screen Sizes (4:1 ratio)

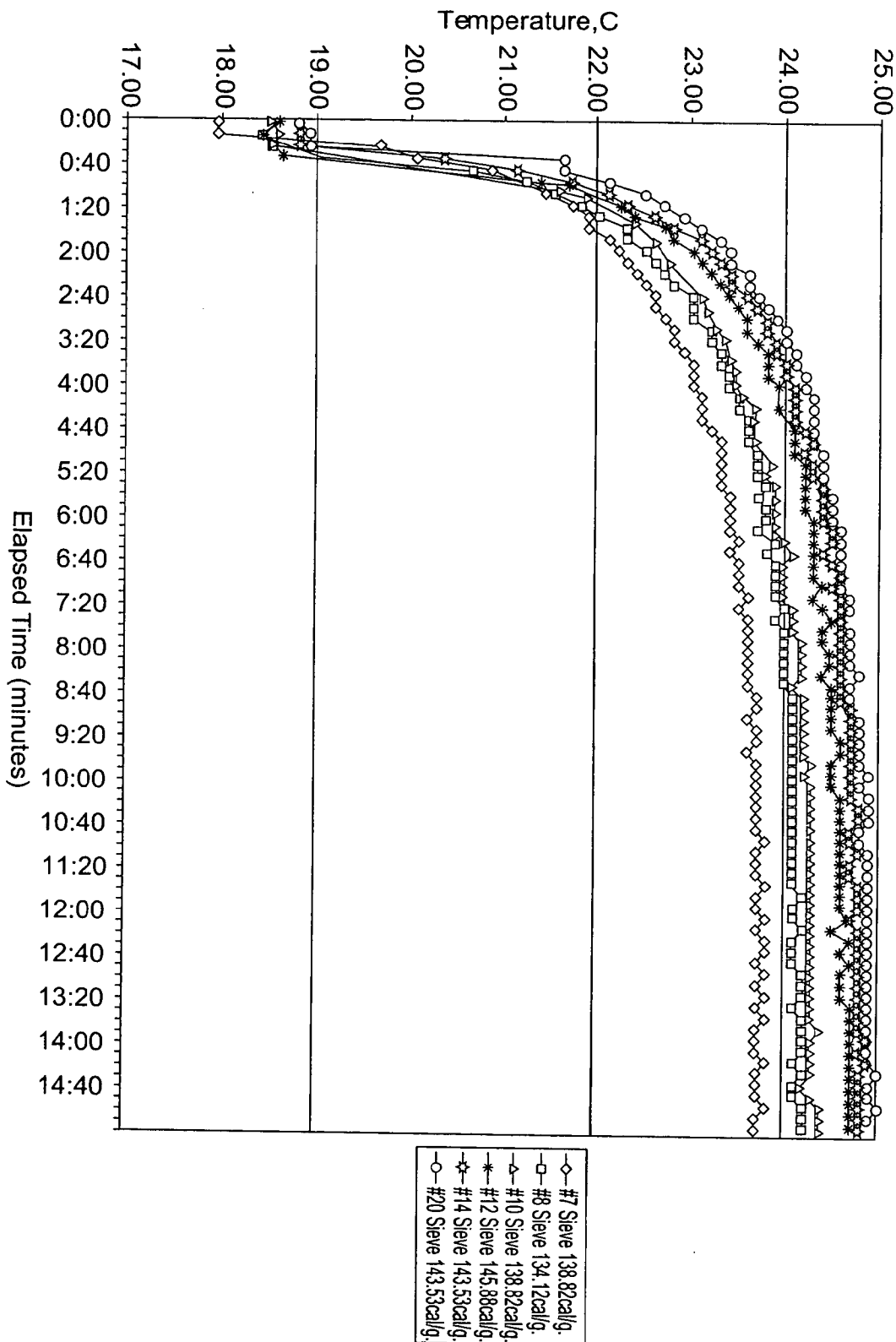


FIG. 19

Calories Generated by Varied Water Amounts (4:1 is Baseline at 100%)

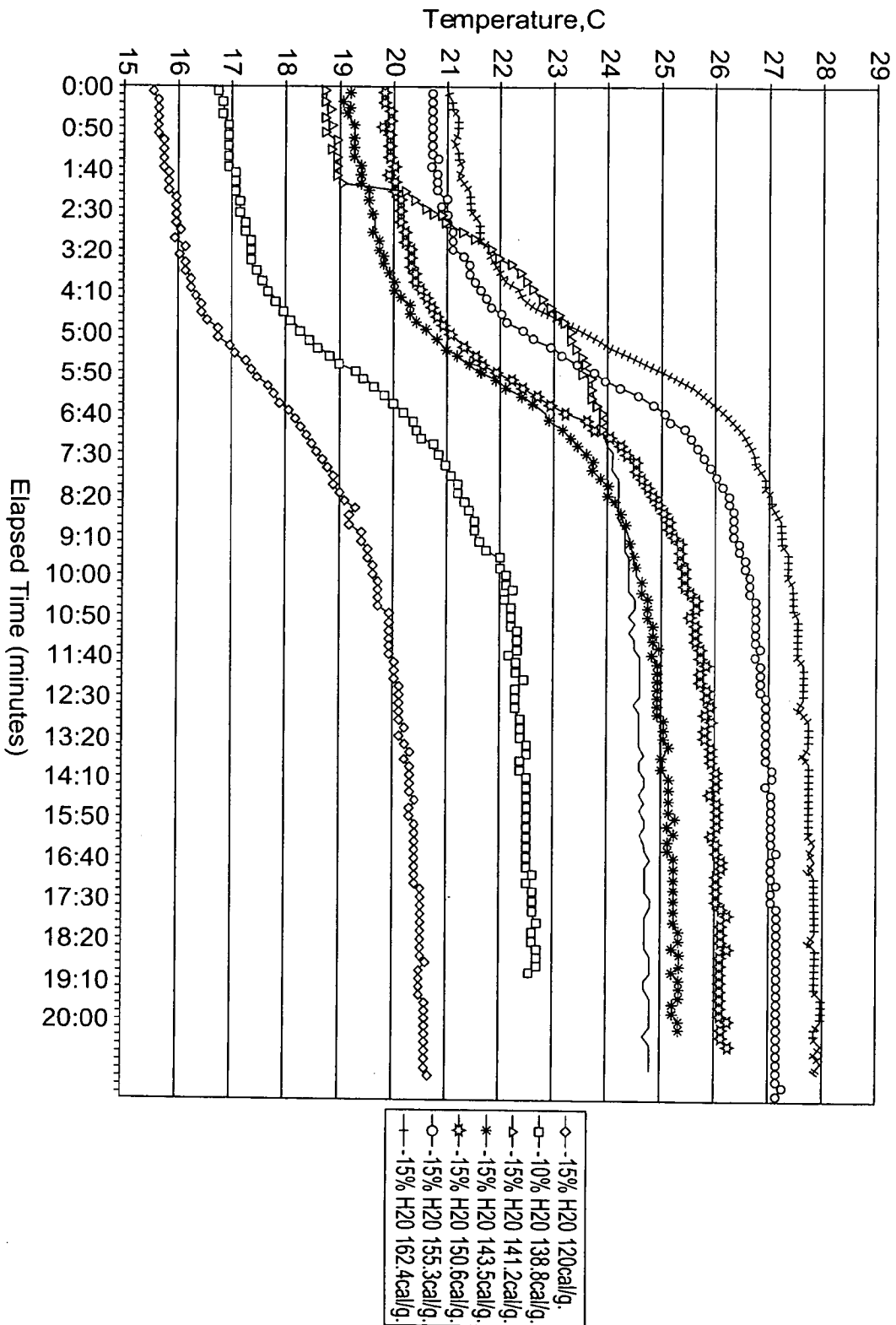


FIG. 20

Additional Calorie Generation with Increased Activation Water

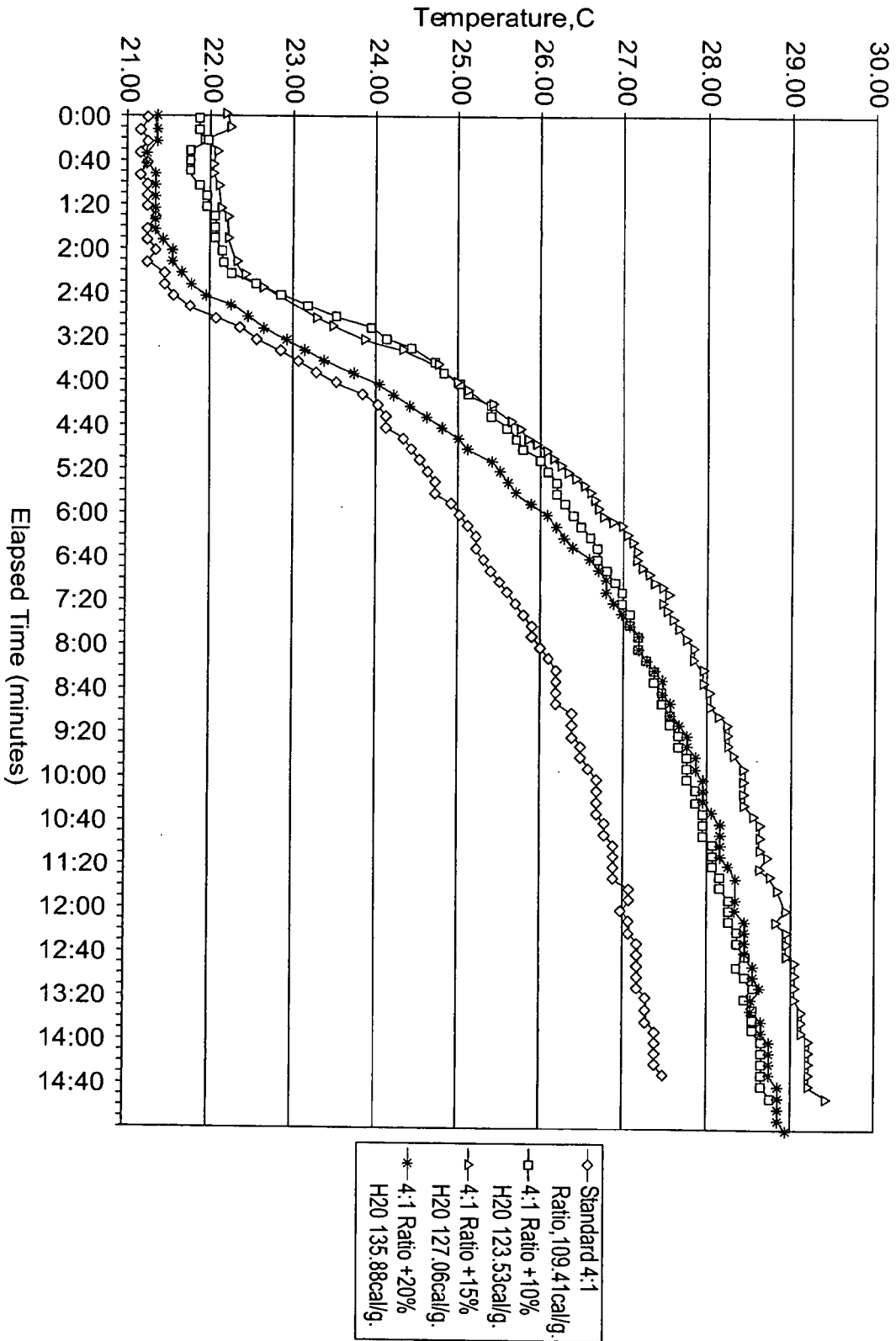


FIG. 21

Mineral components	Concentration (mg/L)
Mineral components	83.0
Chloride	11.7
Fluoride	ND
Nitrate	ND
Silica	28.0
Sulfate	3.4
Calcium	16.6
Magnesium	3.3
Potassium	1.3
Sodium	11.7
Total Dissolved Solids	130
Hardness	55.0
Heavy Metals	ND
Arsenic	ND
Trihalomethanes	ND
pH	7.04
Conductivity ( S	250

(ND = Not Detectable)

FIG. 22

Property

Additive	Molecular Formula	Molecular weight	Physical State	Appearance	Odor	pH	Vapor Density
Sodium Benzoate	C <sub>7</sub> H <sub>5</sub> CO <sub>2</sub> Na	144.02	Crystalline powder	white	Characteristic odor	~8	4.97
Fructose	C <sub>6</sub> (H <sub>2</sub> O) <sub>6</sub>	180.16g	white crystals	white	odorless		
Sucrose	C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>	342.3g	Monoclinic sphenoidal crystals		Characteristic caramel	solutions are neutral to litmus	
Citric Acid	C <sub>6</sub> H <sub>8</sub> O <sub>7</sub>	192.12g	white granules	white	odorless	2.2 (0.1N sol)	

Additive	Evaporation rate	MP	Solubility	Specific Gravity/ Density	Chemical Stability	Incompatibilities with Other Materials	Hazardous Decomposition Products
Sodium Benzoate	negligible	>300C	Soluble in water	1.44	Stable under normal temps and pressures	Strong oxidizing agents	CO, CO <sub>2</sub> , NaO
Fructose		103-105C	Soluble in water		Stable under normal temps and pressures	Strong oxidizing agents	CO, CO <sub>2</sub>
Sucrose		160-186C	1gm/0.5ml water	1.59	Stable under normal temps and pressures	Oxidizers, sulfuric acid, and nitric acid	CO, CO <sub>2</sub>
						Metal nitrates (explosive), alkali carbonates and bicarbonates, potassium tartrate. Will corrode copper, zinc, aluminum and their alloys	
Citric Acid		153C	60g/100ml at 20C	1.665	Stable under normal temps and pressures		CO, CO <sub>2</sub>